

CHANGES IN THE NUMBER OF INSTITUTIONS SUPPORTED, BY SELECTED CARNEGIE GROUP

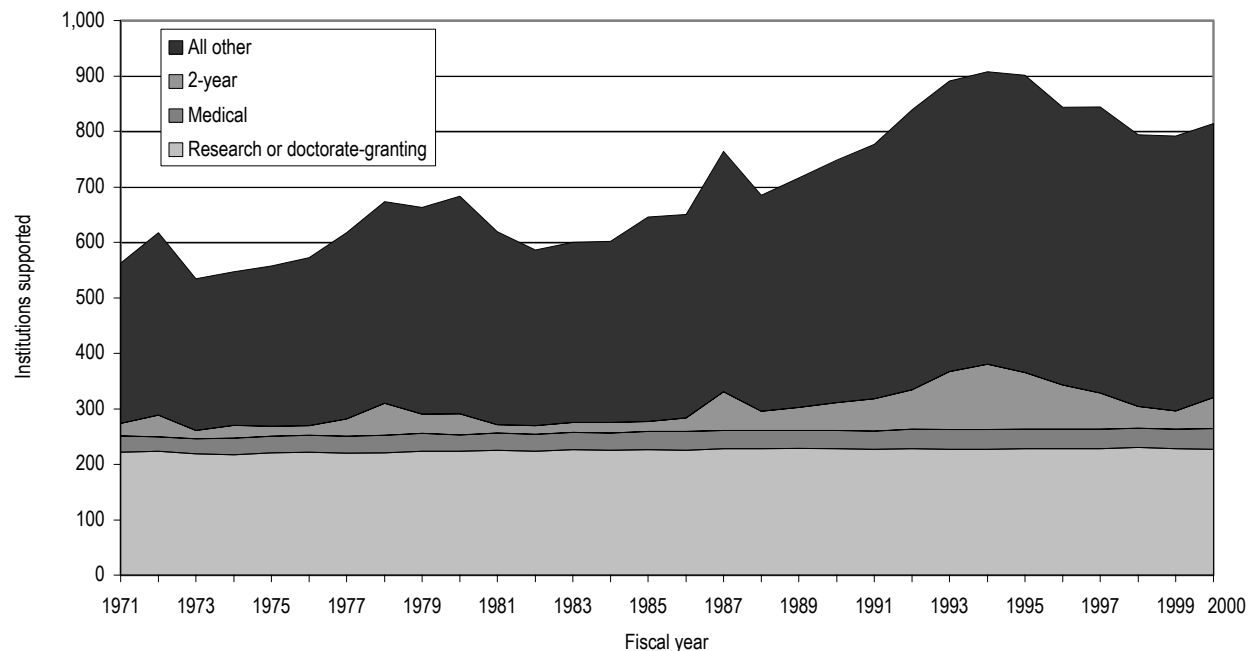
For this analysis, academic institutions are divided into three broad Carnegie groups: (1) research, doctorate-granting, and freestanding medical institutions; (2) 2-year colleges; and (3) all other Carnegie institutions (comprehensive universities and colleges, liberal arts colleges, and professional schools and other specialized institutions). Most of the year-to-year change in the number of institutions receiving Federal R&D or “other S&E support” occurred in the second and third groups, particularly in the third group. (See Appendix A, “Federal S&E Support to Historically Black Colleges and Universities” for a discussion of trends in support to this special group of institutions.)

Research, doctorate-granting, and medical institutions. Little variation existed in the number of research, doctorate-granting, and freestanding medical institutions receiving Federal S&E support during the FY 1971–2000

period. The number with Federal R&D support ranged from 246 to 265. (See figure 4.) The number receiving “other S&E support” ranged from 222 to 259. (See figure 5 and for a detailed breakout by Carnegie classification of the number of institutions receiving R&D or “other S&E support” each year between FY 1971 and FY 2000, see appendix table 1.) During this period, all of the major research universities (89 Carnegie research 1 and 37 research 2 institutions) received support for R&D every year. All of the research 1 institutions and all but two of the research 2 institutions also received “other S&E support” every year. (See appendix table 3 for the number of years institutions within specific Carnegie classifications received support during the 30-year period between FY 1971 and FY 2000.)

Doctorate-granting universities also consistently received Federal R&D support. Among the 52 Carnegie

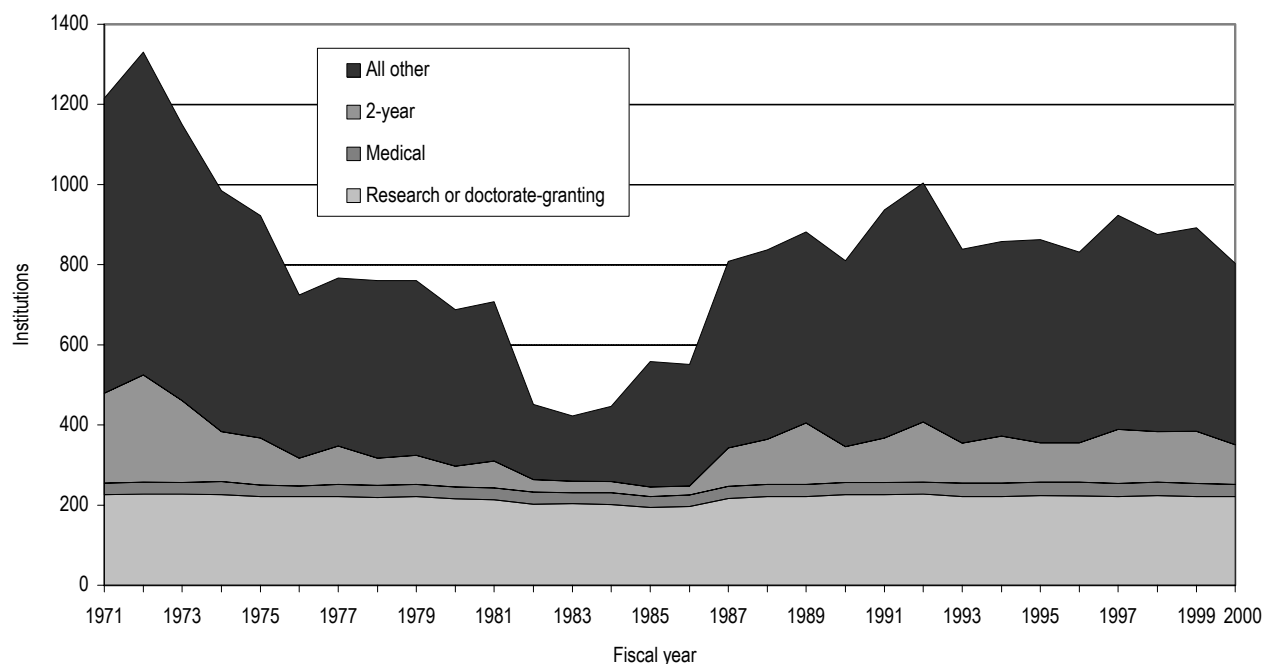
Figure 4. Number of academic institutions receiving Federal R&D support, by selected 1994 Carnegie group: FY 1971–2000



NOTES: R&D support includes support for both R&D and R&D plant. All other institutions include master's or comprehensive universities and colleges, baccalaureate or liberal arts colleges, professional schools and other specialized institutions, and any unclassified institutions of higher education.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, as reported in WebCASPAS data system (available at <<http://www.nsf.gov/sbe/srs/stats.htm>>).

Figure 5. Number of academic insitutions receiving Federal "other S&E support," by selected 1994 Carnegie group: FY 1971–2000



NOTES: "Other S&E support" includes support for facilities and equipment for S&E instruction; fellowships, traineeships, and training grants; general support for S&E; and other S&E activities. All other institutions include master's or comprehensive universities and colleges, baccalaureate or liberal arts colleges, professional schools and other specialized institutions, and any unclassified institutions of higher education.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, as reported in WebCASPAS data system (available at <<http://www.nsf.gov/sbe/srs/stats.htm>>).

doctorate 1 institutions and 55 Carnegie doctorate 2 institutions, the number receiving R&D support in any given year ranged from 46 to 50 (doctorate 1) and 44 to 54 (doctorate 2). Forty of the doctorate 1 institutions received R&D support every year and an additional 8 received support in more than 20 years. Within the doctorate 2 institutions, 39 received R&D support in all 30 years and an additional 13 received support in more than 20 years. However, the number of doctorate 1 and doctorate 2 institutions receiving "other S&E support" in any year (31 to 51 and 37 to 54, respectively) was subject to greater variation, and fewer institutions in either group received this type of support every year. All doctorate 1 and 2 institutions received "other S&E support" at least once during the period, and all but one in each group received R&D support.⁶

⁶ The fact that every research and doctorate-granting institution (except Union Institute (D1) and Biola University (D2)) received both R&D and other S&E funds at least once during the FY 1971–2000 period and most of them received both types of support in every year provides some evidence of the usefulness of the 1994 Carnegie Classification scheme for the present analysis.

Medical institutions also received Federal R&D support in most years. Among the 57 freestanding medical institutions, the number receiving R&D support in any given year ranged from 26 to 37 and the number receiving "other S&E support" ranged from 27 to 34. During the overall period, 42 medical schools received support, with 41 receiving R&D and 39 receiving "other S&E support."⁷ Twenty-two of the 41 freestanding medical schools receiving Federal R&D support received it in each of the 30 years and an additional 8 received support in more than 20 years.

⁷ The remaining 15 schools classified as medical do not appear in the NSF Division of Science Resources Statistics WebCASPAS database. Some of these may be included with the universities that they are part of (University of Connecticut Health Center, Louisiana State University Medical Center) and others may be aggregated into a single institution (University of Medicine and Dentistry of New Jersey (UMDNJ)-New Jersey Medical School, UMDNJ-New Jersey School of Osteopathic Medicine, UMDNJ-Robert Wood Johnson Medical School) rather than reported individually.

Two-year institutions. The number of 2-year institutions receiving Federal S&E support was never very high; those that received support did so infrequently. The number of 2-year institutions receiving R&D support increased from a low of 15 in FY 1973 to a peak of 118 in FY 1994 and then dropped to 33 in FY 1999 (see figure 4 and appendix table 1); the number receiving “other S&E support” went from a high of 266 in FY 1972 to a low of 23 in FY 1986 and then increased, fluctuating between 90 and 154 after FY 1986. (See figure 5.) Of the approximately 1,500 2-year institutions, only 491 received Federal R&D funding during the FY 1971–2000 period. Of those institutions, 219 received support in only a single year and an additional 199 received support in two to four years. Only four 2-year institutions received R&D support for more than half of the period (15 years). Nearly half of the 2-year institutions (726) received “other S&E support,” with 297 receiving such support in only one or two years and an additional 316 receiving it in three to seven years. (See appendix table 3.)

All other Carnegie institutions. Within this group, the main recipients of Federal S&E funding (in terms of number of institutions supported) were master’s or comprehensive institutions, followed by baccalaureate or liberal arts colleges. Members of this group, on average, received support more frequently than 2-year institutions but much less frequently than research, doctorate-granting, and medical institutions. For the group as a

whole, the number receiving Federal R&D support fluctuated between 273 and 373 in the 1970s, between 317 and 433 in the 1980s, and between 437 and 536 in the 1990s. (See figure 4 and appendix table 1.) The number receiving “other S&E support” declined from a peak of 806 in FY 1972 to a low of 163 in FY 1983 and then increased again, fluctuating between 464 and 596 in the 1990s. (See figure 5.)

While most of these institutions received some type of Federal S&E support at least once during the 1971–2000 period, they did not receive support consistently. Of the 529 institutions classified as comprehensive 1 and 2, 458 received R&D support and 499 received “other S&E support” at least once during the FY 1971–2000 period; among those receiving R&D support, 246 were funded in less than half of the period. Of the 612 liberal arts colleges, 438 received R&D support and 525 received “other S&E support” at least once during the FY 1971–2000 period; among those receiving R&D support, 331 were funded in less than half of the period, 217 in less than six years of the period. Of the remaining 225 institutions in the other Carnegie institutions group receiving Federal R&D support at least once, only 61 were funded in more than five years. (See appendix table 3.)